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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,954	12/15/2000	Benjamin F. Cravatt	SCRIP1210-2	1708

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EXAMINER

TRAN, MY CHAU T

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/738,954

Applicant(s)

CRAVATT ET AL.

Examiner

MY-CHAU T TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17,32-40,42-46,53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) 54 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53 is/are allowed.
- 6) ☒ Claim(s) 17, and 32-40,42-46 is/are rejected.
- 7) ☒ Claim(s) 33-35,37-40 and 42-46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/10/2003 & 3/15/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/2/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/1/2004 has been entered.

Status of Claims

2. Applicant's amendment filed 8/10/2004 is acknowledged and entered. Claims 1-16, 18-31, 41, and 47-52 have been canceled. Claims 17, 32, 34-38, 42-44, and 46 have been amended. Claims 53-54 have been added.

3. Claims 17, 32, 35-38, 42-44, and 46 were amended by the amendment filed on 3/15/2004.

4. Claims 42, and 44-46 were amended by the amendment filed on 3/24/2003.

5. Claims 11-26 were amended by the amendment filed on 4/30/2002. And new claims 27-47, which were renumbered to be Claims 32-52 in accordance with 37 CFR 1.126, were added by the amendment filed on 4/30/2002.

6. Claims 17, 31-40, 42-46, and 53-54 are pending.

Priority

7. This application claims benefit to three provisional applications under 35 U.S.C 119(e). These provisional applications are 60/195,954 filed 4/10/2000, 60/212,891 filed 6/20/2000, and 60/222,532 filed 8/2/2000.

Election/Restrictions

8. Newly submitted claim 54 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The new claim 54 is identical to the original claim 1, which was restricted and withdrawn from consideration as being directed to a non-elected invention in the Office Action mailed on 12/18/2002. Additionally, the invention of the new claim 54 and the elected invention, i.e. claims 17, 31-40, 42-46, and 53, are drawn to two distinct methods, which differ in their method steps. The different method steps have different functions, modes of operation and different effects. The elected invention requires the method step of combining each of the proteomic mixtures with at least one activity-based probe. The invention of the new claim 54 requires the method step of combining at least one probe with an untreated portion of the mixture and with a portion inactivated with a non-covalent agent under conditions for reaction with the target proteins. Thus these different inventions as claimed have different method steps that have different functions and modes of operation (MPEP § 806.04, MPEP § 808.01).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution

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on the merits. Accordingly, claim 54 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

9. Claims 17, 31-40, 42-46, and 53 are treated on the merit in this Office Action.

Withdrawn Rejections

10. The rejection of claims 17, and 32-39 under 35 USC 112, first paragraph (written description rejection) has been withdrawn in light of applicant's arguments, see pages 9-11, filed 8/10/2004 and amendment of claim 17.

11. The rejections of claim 36 under 35 USC 112, second paragraph, as being incomplete for omitting essential steps has been withdrawn in light of applicant's amendment of claim 17.

12. The rejection of claim 17 under 35 USC 102(e) as being anticipated by Chin et al. (US Patent 6,197,599 B1) has been withdrawn in light of applicant's amendments of claim 17.

13. The rejection of claims 17, 32-36, 38-40, 42, and 46 under 35 USC 102(a) as being anticipated by Liu et al. (*PNAS*, 1999, 96(26):14694-14699) has been withdrawn in light of applicant's arguments, see page 15, filed 8/10/2004, and the reconsideration of the declaration under 37 CFR 1.132 filed 3/15/2004.

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14. The rejection of claims 17, 32-40, 42, and 46 under 35 USC 103(a) as being obvious over Liu et al. (*PNAS*, 1999, 96(26):14694-14699) and Blanchard et al. (US Patent 5,151,164) has been withdrawn in view of applicant's arguments, see page 16, filed 8/10/2004, and the reconsideration of the declaration under 37 CFR 1.132 filed 3/15/2004.

Maintained Rejections

Claim Rejections - 35 USC § 102

15. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

16. Claims 17, 32, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Purohit et al. (*Biochemistry*, 1995, 34(36):11508-11514). *Note: the reference cited by applicant in IDS filed 11/17/03.*

Purohit et al. disclose a method for screening a library of estrones (probe) for potential inhibition of sulfatase enzymes (i.e. estrone sulfatase and dehydroepiandrosterone sulfatase) in placental microsomes and intact MC1Q7 breast cancer cells (Abstract; pg. 11508, figure 1, compounds 4-6; pg. 11509, left col., lines 34-39) (refers to claim 17 and claim 36). The method comprises combining members of the library with a complex mixture (e.g., the placental microsomes and intact MCF-7 breast cancer cells that contain estrone sulfatase and dehydroepiandrosterone sulfatase) wherein conjugates are formed between the library members and the sulfatase proteins (refers to claim 17, step (a)), and isolating said conjugates from the active and inactive complex mixture (refers to claim 17, step (b) –(c) and claim 32) (pg. 11509,

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left col., line 49 to right col., line 63; page 1 1513, figure 8). Therefore, the method of Purohit et al. anticipates the presently claimed method.

Response to Amendment

17. In view of applicant's arguments, see page 15, filed 8/10/2004, the declaration under 37 CFR 1.132 filed 3/15/2004 is sufficient to overcome the rejection of claims 17, 32-36, 38-40, 42, and 46 under 35 USC 102(a) as being anticipated by Liu et al. (*PNAS*, **1999**, 96(26):14694-14699).

18. In view of applicant's arguments, see page 16, filed 8/10/2004, the declaration under 37 CFR 1.132 filed 3/15/2004 is sufficient to overcome the rejection of claims 17, 32-40, 42, and 46 under 35 USC 103(a) as being obvious over Liu et al. (*PNAS*, **1999**, 96(26):14694-14699) and Blanchard et al. (US Patent 5,151,164).

Response to Arguments

19. Applicant's arguments directed to the rejection under 35 USC 102(b) as being anticipated by Purohit et al. (*Biochemistry*, **1995**, 34(36):11508-11514) for claims 17, 32, and 36 were considered but they are not persuasive for the following reasons.

Applicant contends that the method of Purohit et al. does not anticipate the presently claimed method because 1) "*Purohit et al. fail to teach using plurality of probes*" and 2) "*Purohit et al. merely teaches protein inhibition but does not provide for differentiating a*

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complex mixture of proteins on the basis of activity". Thus the method of Purohit et al. does not anticipate the presently claimed method.

Applicant's arguments are not convincing since the method of Purohit et al. does anticipate the presently claimed method. First, the method of Purohit et al. does teach using plurality of probes (see pg. 11509, lines 28-36). Second, the presently claimed method does not claim the method for "*differentiating a complex mixture of proteins on the basis of activity*". The presently claimed the method for "*determine the presence of the adduct in each of the mixture; whereby the presence of the adduct in the mixtures is indicative of the presence of the active target members in the mixture*". The method of Purohit et al. does anticipate the presently claimed method, and the rejection is maintained.

Allowable Subject Matter

20. Claims 33-53, 37-40, and 42-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. The following is a statement of reasons for the indication of allowable subject matter of claim 53: The claim 53 is allowable for the reason that the cited prior arts do not teach or fairly suggest the method using the activity-based probe having the formula of $R^*(F-L)-X$.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mct
January 9, 2005


PADMAASHRI PONNALURI
PRIMARY EXAMINER